**IT Applications Unit 3, AOS 1, Online Communities**

1. Complete the following, from pgs, 32: **Network security**

**Networks are classified according to below and we will study the following:**

1. Network Categories: LAN, WAN
2. Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet
3. Network communication standards
4. Network hardware and software
5. Transmission media
6. **Network security**
7. What types of physical security measures can be put in place?

Locks and alarms to warn of intruders can protect a cabled network to a degree.

**Usernames and passwords**

1. Recommend a password strategy that an organisation could use to avoid unauthorised access to the network.

Passwords should contain 8 or more characters in length, include non-alphabetic characters, not too easily guessed and changed every month.

**Firewall**

1. Describe the nature of a firewall.

A firewall is a server and software combination that filters the information coming through an internet into an organisations internal network.

1. What are the main purposes of firewalls and how are these purposes achieved?

Its main purpose is to examine the IP address of computers that request information from an internal server, blocking all access to certain domain names, banning certain protocols from accessing particular servers and certain words and phrases included in packets of information.

1. Why do firewalls use 2 separate NICs?

There is 2 separate NICs because one is connected to the outside world and the other is connected to the internal network.

**Malware protection**

1. What is malware and what strategies are used to protect against this type of software?

Malware is a malicious software that includes spyware, adware, Trojan, horses, worms and viruses. Strategies used are installing a antivirus software and updating it as soon as possible and installing a firewall.

**Encryption**

1. What is encryption?

Encryption is the process of translating data into a secret code that can only be read by authorised users.

1. Describe the nature of WPA or WPA2.

It provides security by encrypting data sent over radio waves so that it is protected over transmission from the sending device to the receiving device.

1. What is encrypted data known as?

It is also known as ciphertext.

**Secure Websites**

1. Describe the secure protocol to allow secure financial transactions across the internet.

Transactions are encrypted and authenticated as they travel across the internet by industry standard 128-bit SSL encryption to protect the privacy of information.

1. What is digital identification certificate technology based on?

It is based on a trusted certificate authority.

1. Describe the nature of Secure sockets layer (SSL) protocol.

SSL protocol is a cryptographic protocol that provides secure connection to the internet.

**Physical design of networks**

1. What is the role of a network diagram?

The role of a network diagram is to show the physical devices and communications lines present in a network.